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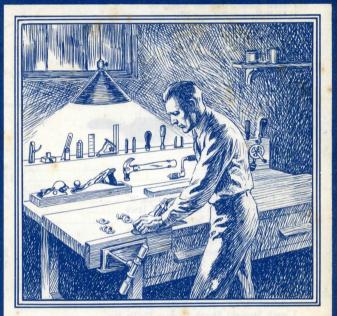
New Britain, Conn.



STANLEY TOOLS

New Britain, Connecticut

Things to make in your HOMEWORKSHOP



16 complete plans



THE WORK BENCH

The first necessity of the craftsman is a suitable bench on which to do his work. Here is one that will fill his every need, whether he is an amateur or an expert. It is sturdy, practical, efficient, requires little room, and has the added advantage of including a well-designed tool panel. With these unusual advantages, it is nevertheless of simple construction and one that the amateur readily can build himself.

If instructions are followed and the work carefully done, such a bench will last a lifetime. The tool panel provides space for most of the important hand tools, and additional storage space can be had by adding a drawer, more if desired, as shown in the accompanying photograph. Held with lag screws and draw bolts, all difficult joints have been eliminated from its construction. If you want to start your home shop activities in a first-class manner, build this practical bench.

A bench, such as this, should be constructed of maple throughout. If this cannot be obtained another hard wood should be substituted. Even though this substitution is made, try to obtain maple for the top of the bench or at least a wide piece for the front edge, as this surface will receive the greatest wear.

Dress your stock to the following sizes and mark each piece with its proper name:

Piece	es Thick	Wide	Long	Part
*4	13/4"	61/2"	5' 0".	Top .
4	13/4"	33/4"	2' 61/4"	Legs
2 2	1 3/4"	3.3/4"	2' 111/2"	Top Front and Back Rails
2	13/4"	53/4"	2' 111/2"	Bottom Front and Back Rails
2	1 3/4"	33/4"	161/2"	Top End Rails
2 2	13/4"	3 ³ / ₄ " 5 ³ / ₄ "	161/2"	Bottom End Rails
1	3/4"	91/2"	5' 0"	Tool Rack
1	3/4"	15/8"	5' 0"	Tool Rack

* Any combination of pieces of varying widths may be used.

Each piece should be squared up to the above size, and the top, at least, should be finished smooth with sandpaper. All these pieces that are duplicates should be tested by placing one piece on top of the other to see that they match perfectly. Especial care should be given all ends, particularly the rails, to see that they are perfectly square and true, as this bench is assembled with butt joints.

You will also need sixteen 3/8" x 5" long, draw bolts and ten lag screws of the same size. The former hold the rails to the legs, while the latter fasten the top to the under framing. Note these in the plan.

Locate the two edge and two side bolt holes in one leg. Drill these four holes for the bolts. Be sure that these holes are drilled perpendicular to the face of the wood. When completed, use this drilled leg as a master with which to locate and drill the remaining three legs. All of these holes must extend all the way through the legs.

Place two of the legs on their sides with the top and bottom end rails in position. Lay out the location of their bolt holes. At the same time, locate the two holes for the lag screws in the top rail. Bore these holes to their proper depth. Bore 1" diameter holes for the nuts, on the inside faces of the rails. The holes

for the lag screws extend through the rails. Replace all four pieces in position on the floor, as shown in the plan under "End View." Place a washer on each bolt and pass it into its hole. Place a nut through the nut hole and turn the bolt until the leg and the rail are drawn tightly together. When all bolts are in place, assemble the other end unit in the same manner.

Place these end units on their edges on the floor with the top and bottom back rails in place between them. Locate their bolt holes from those already made in the legs. At the same time, locate the three lag screw holes in the top rail. Bore all these holes to their proper depth, as well as the nut holes in the inside faces of the rails. Repeat this same procedure for the locating and drilling of the holes in the front, top, and bottom rails. Drill these holes.

Assemble the end units together by attaching the front and back, top and bottom, rails. Go over the entire assembly with a try square or steel square, and test it for right angles.

The top of the bench is now prepared. Match the adjoining edges perfectly in preparation for gluing. If desired holes may be bored and the pieces connected with dowels.

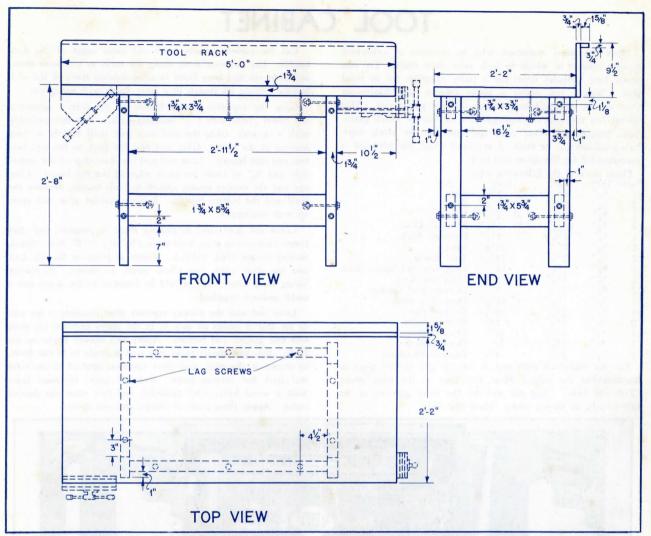
Apply glue and clamp firmly together. When the glue has hardened, remove all excess glue and bring the entire piece to a satin finish with a scraper and sandpaper. Place it flat on the floor with the underframing in proper position on it, as shown in the plan under "Top View." Turn the ten lag screws through the rails into the top. Make these extremely tight and do not forget to apply washers.

Turn the bench up on its legs and inspect your work. See that all joints are tight, all sharp edges removed, and give it a general cleaning up.

The tool panel or rack is made of two pieces. The narrow top one must be prepared to hold chisels, try squares, screw drivers, etc. Lay out the various holes and slots required for these tools along this piece, and then bore, chisel, and saw these out. Finish all edges smooth with sandpaper.

The narrow strip is then fastened along the top and at the back of the $9\frac{1}{2}$ " wide piece with glue and screws. Use five





2½ x No. 10 flat-head wood screws at practical intervals. Drill the screw holes through the narrow strip and countersink them for the flat-head screws. Apply glue and assemble.

Locate a screw hole 3" from each end and three more at regular intervals along the base at the back of the panel $\frac{7}{8}$ " up from its bottom edge. Drill the screw holes and countersink them for flat-head $\frac{1}{2}$ " No. 12 wood screws. Place the panel in position against the back edge of the bench top and apply glue to both pieces. Turn the screws through the panel into the bench edge.

Go over the panel with sandpaper, remove all excess glue, and round the upper end corners of the panel, as shown in the plan. This completes the construction of the bench.

Any type of continuous screw or quick acting vise can be used on this bench. An ideal arrangement is to include not only a front vise but a tail stock vise as well. The latter should have a dog in the front jaw. A Stanley No. 207 bench stop should be supplied for such a bench. A series of 18 " holes

should be drilled through the bench top to accommodate it at different positions. The one on the left end should be located opposite the front vise and in line with the dog on the tail stock vise. The other holes should extend in a straight line across the bench from this left end hole.

While our plan does not specify drawers in an effort to simplify construction for the amateur, one or more may be added under the top, as shown in the accompanying photograph.

It will be found of aid to outline the shape of each tool on the panel when it is hung in place on the board. These outlines are then filled in with black paint. When the tools are removed, their positions on the board can be quickly recognized by their painted silhouettes. The entire bench can be given two preserving coats of varnish or shellac. The end grain should be well filled to prevent checking.

Note:—A Work Bench similar in construction to the one described, with a set of 25 Stanley Tools, can be purchased from your hardware dealer. The bench comes complete with all bolts, nuts and screws, and the wood parts are cut to size and fitted for quick assembly. Ask for Stanley Work Bench and Tool Set No. 845.

TOOL CABINET

There are many craftsmen who by necessity or otherwise desire a cabinet in which to lock away their tools. The one shown here provides room for a fairly complete set of hand tools. Should you desire a larger cabinet, the dimensions given can be increased to give you the size you desire. This cabinet has the added advantage of a drawer in which plans, small fittings, and other odds and ends can be safely kept. Such a cabinet can be made of any hard wood, but plywood is recommended for the doors and back.

Dress stock to the following sizes: Wide Part Pieces Thick Long 1.3/8" 81/2 Top 73/4" ,45/8 Sides 2 1.3/8 Bottom 1216 2' 33/4 Plywood Doors 1 3/8 Plywood Back 241/8 Shelf 241/8 Tool Racks 10" Long Saw and Square Rack 53/4 Long Saw Rack Drawer End Guides 1' 11 7/8 Door Top Stop 1' 103/ Drawer Front 21/2 515 Drawer Sides 1' 10" 51/8 Drawer Bottom 1' 10" Drawer Back 47/8"

Cut the rabbet on each end of the top and bottom piece to accommodate the sides. Note this joint in the plan under "Top and Side." Lay out and cut the three grooves in the side boards, as shown under "Shelf and Side."

Drawer Partitions

Cut the rabbets on the inner and outer edges of the door boards. Lay out your tools along the racks as you wish them, and then cut and bore holes to accommodate them in the rack boards. Bring all boards to a satin finish with sandpaper.

Glue the top and bottom boards to the sides. Reinforce the rabbet joints with 11/4" finishing nails. Test this assembly with a square. Glue the tool rack and shelf boards in their grooves in the sides. Glue and nail the back to the top, bottom and side boards. Glue and nail the door stop on the underside and 3/4" in from the front edge of the top board. Glue and nail the drawer guides against the side boards, between the shelf and the bottom boards. Remove surplus glue and clean up with sandpaper.

Check the door sizes by placing them in position, and then fasten each one in place with three 1½" x 1 7/16", brass plated, Stanley hinges (No. 295½). Fasten in place on the left door and the shelf edge, one elbow catch, as shown. A Stanley Safety Hasp (No. 346) should be fastened to the doors and a small padlock supplied.

Glue and nail the drawer together after checking it for size to see that it makes an easy fit in the recess between the shelf and end guides and bottom. Apply two drawer knobs to the front. Saw and square racks may now be made to fit the doors, as shown in the plan, and other fasteners applied to the sides and back for various tools. Sink all nails, fill their holes with a wood filler, sand carefully, and then stain any desired color. Apply three coats of shellac and rub down.

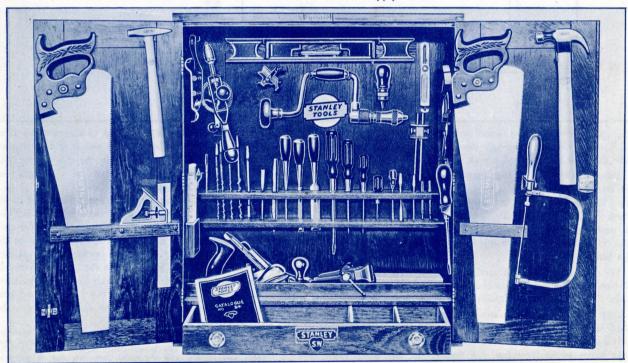
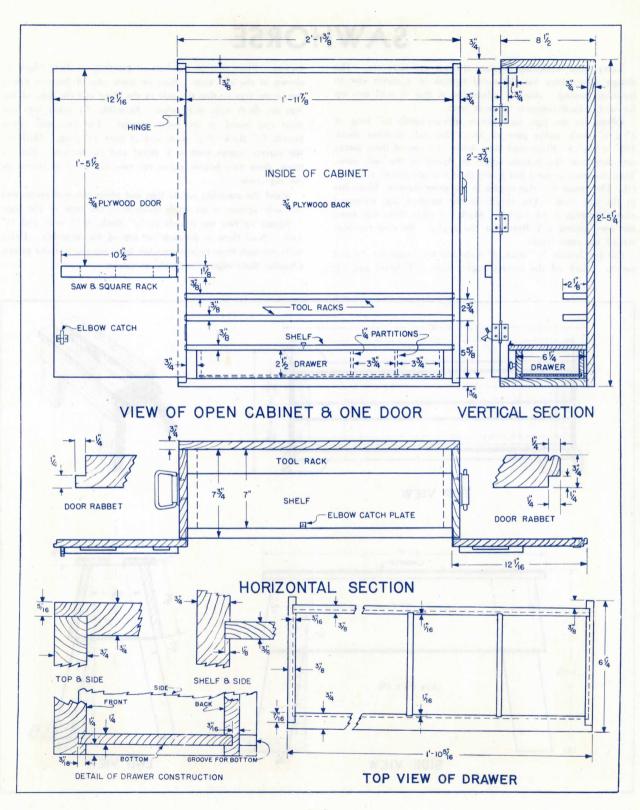


Illustration is of Stanley Tool Assortment No. 850



SAWHORSE

Every home workshop requires at least one sawhorse. The design shown here has the novel feature of a center slot to facilitate sawing. Another advantage is that it will not tip forward, a fault common to most types.

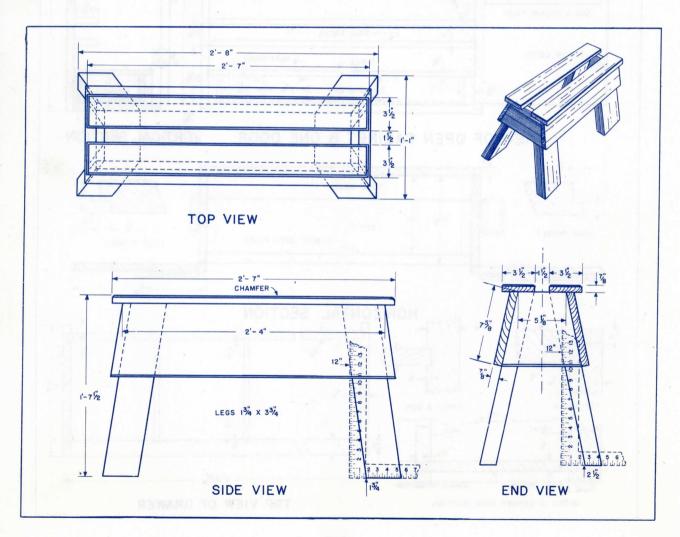
Obtain for the legs, four pieces approximately 22" long of 2" x 4" stock, either pine or fir. (This will measure about 1¾" x 3¾".) Place your Steel Square on one of these pieces and determine the bottom angle, as shown in the side view. Turn the piece around and locate the top angle which is identical. Determine the edge angles in the same manner. Note this in the end view. The length of the finished leg, measured along any edge is 18 13/16". Mark the other three legs from this one, setting a T Bevel for the angles. Be sure the legs are all the same length.

Cut two boards 7/8" thick, 8" wide and 81/2" long for the end pieces. Mark off the correct angles with a T Bevel and cut

to size. Place two of the legs in position on their edges, as shown in the end view. Nail or screw one of the end pieces across the legs so that the side of the piece and the tops of the legs are flush with each other. Assemble the other legs and their end board in the same manner. Cut two side apron boards $\frac{7}{8}$ " thick, $\frac{7}{8}$ " wide and at least $\frac{3}{8}$ " long. Mark off the correct angles with a T Bevel and cut to size. Nail or screw these two boards across the two leg units as shown in the side view.

Stand the assembly on its legs and plane the end pieces and the side aprons at an angle flush with the tops of the legs. Square up two top boards to 7/8" thick, 31/2" wide and 31" long. Nail these in position on top of the assembly. Drive nails through these boards into the legs, aprons, and end pieces.

Chamfer their edges for finish, as shown.



BOOK AND MAGAZINE RACK

A magazine rack is always a handy addition to the easy chair, but when it provides space for books, as well as a convenient handle by which it may be moved, it becomes just different enough to be interesting. As all parts are of the same thickness, ½" plywood is recommended. Note in the stock list that some pieces are wider than they are long. This has been done to insure correct direction of grain which should run vertically when assembled. Square up stock to the following sizes:

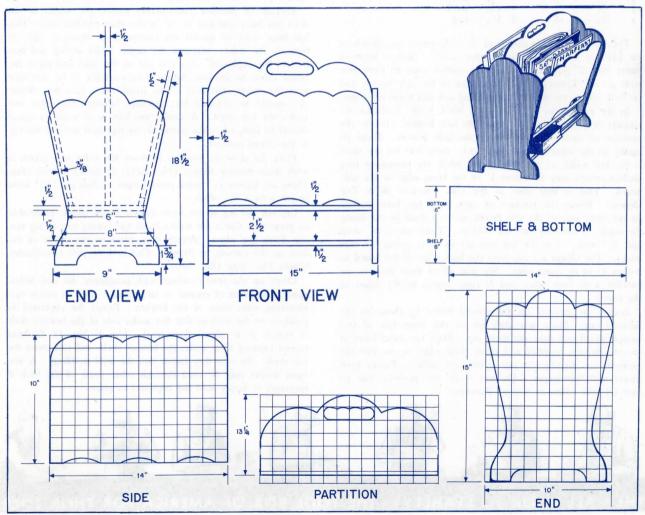
Pieces	Thick	Wide	Long	Part
1	1/2"	14"	131/4"	Partition
2	1/9"	14"	10"	Sides
2	1/5"	10"	15"	Ends
1	1/5"	6"	14"	Bottom
1	1/2"	73/4"	14"	Shelf

Draw end designs on 1" squares, transfer them to their respective pieces of stock, and saw them out with a coping or jig saw. Sand all edges smooth.

Lay out the guide lines on the inner side of the end pieces for the partition, sides, shelf, and bottom. Assemble the bottom to the partition with glue and $1\frac{1}{4}$ " brads. Glue and nail the shelf, bottom board, and partition between the end boards. The side boards are then fitted to the bottom and assembled in place. Sand all parts preparatory to finishing.

For a stronger and more substantially constructed rack, groove the end pieces to take the shelf, bottom, partition, and sides. If round head screws are not objectionable they may be used instead of nails to give added strength. Care should be taken to locate the screws at orderly intervals so that they will not be unsightly.

Apply stain, and wood filler, and finish with three or more coats of shellac. Sand between coats. Rub final coat with pumice and crude oil. Such racks may also be enameled or lacquered and decalcomanias applied to sides and ends if desired.



COMBINATION TABLE-CUPBOARD

This simple combination breakfast table and cupboard will prove a valuable asset in your kitchen and pay for itself many times over in added convenience and efficiency. It has been designed as an alternate for the more complicated breakfast nook shown elsewhere in this booklet.

Plywood, 34" thick, for the top and back, is recommended for this cupboard, although if this cannot be obtained regular stock may be used. If the top is to be glued up of pieces of varying widths, two battens should be fastened to it across the width near each end.

Square up and dress stock to the following sizes:

Pieces	Thick	Wide	Long	Part
2	3/4"	11"	4' 31/2"	Sides
1	3/4"	11"	2' 63/8"	Top Shelf
4	3/4"	10"	2' 63/8"	Lower Shelves
1	3/4"	2' 61/4"	3' 51/4"	Door
1	3/4"	2' 71/2"	4' 73/4"	Back
1	3/4"	10"	2' 51/4"	Leg

The top and bottom shapes of the side pieces are shown in the plan on 2" graph squares under "Side." Rule a sheet of paper with 2" squares and make a perfect copy of these two ends on it. Transfer this to each one of the side boards and cut both side pieces with a coping or jig saw and finish the edges.

In the plan under "Section Thru Shelf Joint" is shown the manner of joining the shelves to the side boards. Locate the position of each shelf on one of the side boards. Make all marks on the inner face of the board. Note that the top shelf is the full width of the side board, while the remaining four shelves extend only to within 1" of the front edge of the side board. This is best seen in the view "Section With Top Down." When the position of each shelf has been marked on the inner face of the side board, grooves must be cut along the marks to accommodate the shelves. These are 3/16" deep and 3/4" wide. Cut the top one all the way across the side board. The others are cut from the back edge of the board to within 1" of its front edge. See that all of these grooves are parallel with each other and at right angles to the edges of the board.

Locate the grooves on the second board by those on the finished one. Make sure they are on the inner face of this second board and then cut them out. Place the inner faces of the two boards together and check their edges to see that the grooves are directly in line with each other. Finish both pieces with sandpaper. Do not touch the grooves, but go over all other edges to remove sharpness.

Test the shelf boards in the grooves. Make them fit snugly. Coat the end edges of the shelf boards and the inside of the grooves with glue, assemble the pieces together, and nail through the sides using $1\frac{1}{2}$ " finishing nails and sink them. Square up the entire unit, and allow to dry thoroughly.

Make a full-size copy of the top of the back on 2" squares, transfer it to the top of the back board, and saw it out. Finish all edges smooth with sandpaper. Place the cupboard on the floor—resting on the front edges of the side boards—and place the back board in position on the back edges of the side and shelf boards. Locate six screw holes in each side and two holes in each shelf for 1½" x No. 8 screws and drill and countersink for the flat-heads. Coat all edges with glue and drive the screws through the back into the edges of the side and shelf boards. When the glue has set, remove all traces of it and smooth all edges with sandpaper. The door, or table top, is now to be fitted.

Because of possible construction errors, the width of the door has been specified as $\frac{1}{4}$ " wider than finished size. This has been done to permit the craftsman to obtain a tight fit between the sides. Measure the inside width at top and bottom of the cupboard. Lay this out on the door and plane the board down to the line, fitting it occasionally to be sure that it is not made under-size. This should be a nice fit. About $\frac{1}{16}$ " should be allowed for clearance between the sides and under the top shelf. A small turn button of wood or metal should be fastened to the center of the top shelf to hold the top in the closed position.

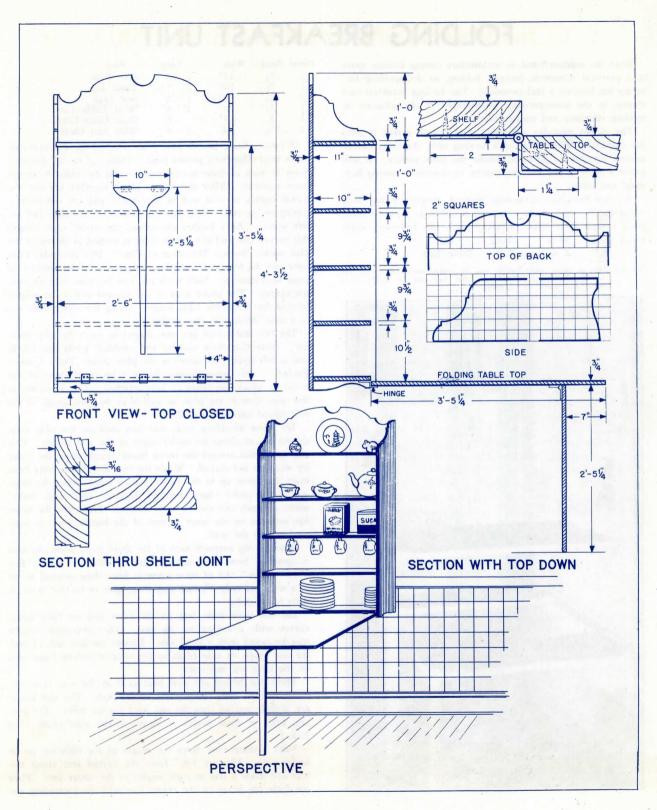
Place the door in position between the sides and attach it with three Stanley hinges (No. 820), as shown in the plan. These are known as "heavy chest hinges." Ask for $1\frac{1}{2}$ " joint length with a 34" offset.

Lay out the leg to the form shown in the plans, preferably on plywood. Cut it out with a hand and coping saw or jig saw and finish the edges. Attach it in place in the center of the door on the outside, as shown. This is done with two Stanley hinges $2\frac{1}{2}$ long (No. 800).

Clean up the entire cabinet with sandpaper, fill nail holes, apply three coats of enamel or lacquer of à color or colors harmonizing with those of the kitchen. Fasten the cupboard in position on the wall so that the under side of the bottom shelf is exactly 2' 6" above floor level. Use 3" No. 12 flat-head screws locating them under the bottom shelf, and just above the top shelf. Be sure they fasten into the wall studding. A few more screws may be used through other parts of the back if necessary to firmly hold the cupboard in place.



THEY ALL LOOK TO STANLEY - - THE TOOL BOX OF AMERICA FOR THEIR TOOLS



FOLDING BREAKFAST UNIT

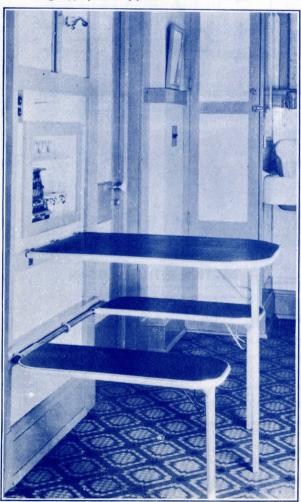
With the modern trend in architecture cutting kitchen space to a practical minimum, built-in, folding, or disappearing furniture has become a real necessity. The folding breakfast unit shown in the accompanying photographs is the ultimate in modern efficiency and construction.

The design provides adjustable seats, which makes it ideal for children. When used as a serving table the seats can be pushed together to give you double the table surface. It will prove a boon in any kitchen, pantry, or dinette by saving both space and labor.

As such furniture is usually painted, practically any hard wood can be used in its construction although plywood lends itself best to these sizes. Dress stock to the following sizes:

Pieces Thick Wide Long Part
1 3/4" 2' 0" 3' 2" Table Top

Note:—Two or more wide boards can be joined and substituted for the specified single board, or the top can be made of a single ¾" piece of plywood.



Pieces	Thick	Wide	Long	Part
2	3/4"	12"	2' 10"	Seat Tops
1	3/4"	10"	2' 51/4"	Table Leg
2	3/4"	61/2"	1' 5"	Seat Legs
1	3/4"	4"	2' 6"	Wall Table Cleat
1	3/4"	3"	6"	Wall Catch Cleat
1	11/2"	4"	3' 4"	Wall Seat Cleat

If two or more boards have been selected for top material, plane their edges to a perfect joint. Three ½" or ¾" diameter holes in each of these matched edges may be added to dowel them together. After the top is glued together lay out the corner curves on one end of this board and cut out with a coping or jig saw. Note that the corners of the other end are left square. As a further decoration, the under edge around this curved end and along both sides is shaped as shown in the plan under "Section Thru Seat or Top." This particular form need not be followed, but these edges should be finished in some such manner. Such work can best be done with an electric shaper. The under edge of the straight end is not shaped because this holds the table hinges. Bring the entire table top to a satin finish with fine sandpaper.

The two seat boards are now shaped in much the same manner. Note that three corners are rounded, while the fourth one is left square, as shown in the plan under "Front View—Folded." This square corner forms a lip on the end of the board to which the hinge is later attached. This is shown in the same view in the plan, as well as in the photograph of the unit folded against the wall.

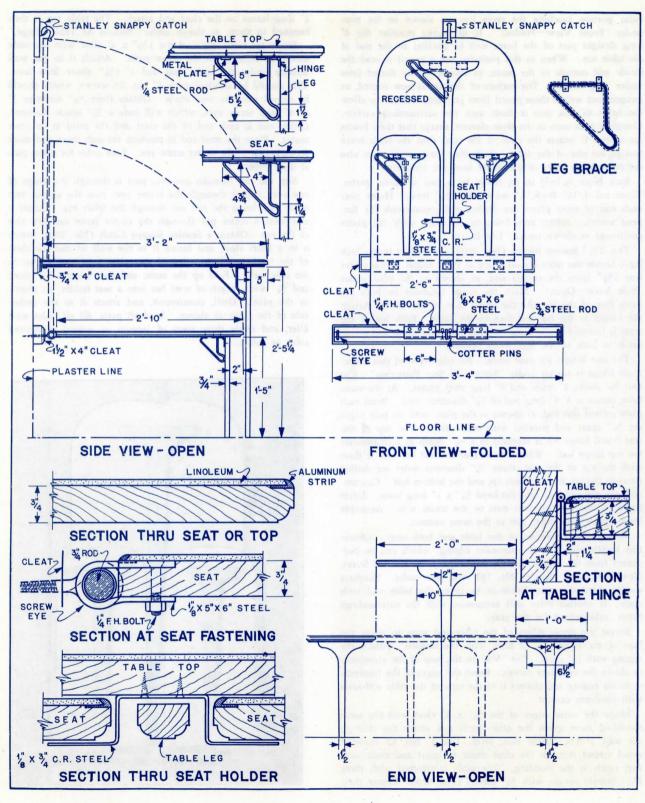
The same moulding form that was used on the table edge should be cut along the under edges of the seat boards. This edging extends around the entire board except along the hinge lip which is not shaped. While the two seat boards have been exact duplicates up to this point in their construction, the shaping of the under edges identifies them as "left" and "right" seats, and each one should be so marked. Note that the hinge lips must be on the inner corners of the boards when in position against the wall.

A single leg supports each of the three parts when the unit is opened. Note their general form in the plan under "End View—Open." All of them curve in from their original width to a width of only 2", and they then taper in to 1½" wide at their lower ends.

Lay out these three legs on the stock and cut their upper curves with a coping or jig saw. The remaining lengths may be sawed with a hand saw. Choose the best side of each leg and shape its side edges to the same moulding form used on the table top and seats.

Three leg braces are now bent cold in the vise from ¼" diameter steel rod. Note these in the plan. The seat braces are slightly smaller than the one used for the table. The general form of these braces is shown in the plan under "Leg Brace."

Mark a center line down the length of the table top on its under side. Measure $3\frac{3}{4}$ " from the curved end along this line and draw a line at right angles to the center line. Place the table leg brace on the center line with its protruding cir-



cular portion touching the cross line, as shown in the plan under "Front View—Folded." If in proper position the 4" long straight part of the brace will be parallel to the end of the table top. When in this position, run a pencil around the inside and outside of the brace, as shown by the dotted lines under "Leg Brace." The surface of the top is now routed, or gouged, out within these pencil lines just deep enough to allow the brace to sink into it flush with the surrounding surface. Complete both seats in the same manner, except that their braces are moved 1" nearer the ends of the seats than the table brace was to the end of the table. Note that their recesses are also cut on opposite sides of the center lines for symmetry.

Each brace is held in its recess by a pair of metal plates. These are 1/16" thick, 1" wide and $1\frac{1}{2}$ " long. Holes near each end of these plates are drilled and countersunk for flathead screws. Attach each brace in its recess with the plates positioned as shown under "Leg Brace."

Two 2½" Stanley hinges (No. 800) are used to fasten each leg. Locate the table leg on a line at right angles to the center line 3¾" from the curved end, as shown in the plan under "Side View—Open." Mark the hinge locations on both the inner face of the leg and the under side of the table. Attach the hinges to the leg and then to the table. Each leg of the seats is fastened in the same manner. See that the braces swing easily in back of the legs when opened.

The seat hinges are now made. An edge view of this homemade hinge is shown under "Section At Seat Fastening." Cut two $\frac{1}{8}$ " thick, 5" wide and 6" long steel plates. At the same time, obtain a 3' 4" long rod of $\frac{3}{4}$ " diameter steel. Bend each plate around this rod, as shown in the plan, until its side edges are $\frac{5}{8}$ " apart and parallel with each other. The top of the seat board hinge lip is recessed to a $\frac{1}{8}$ " depth to accommodate the top hinge leaf. When cut so that the leaf fits into it flush with the top of the seat, three $\frac{1}{4}$ " diameter holes are drilled through the top leaf, the seat lip, and the bottom leaf. Countersink the top holes to take flat-head $\frac{1}{4}$ " x 1" long bolts. Insert the bolts and tighten their nuts on the under side. Assemble the hinges on the other seat in the same manner.

Measure the perimeter of the table and both seats. Obtain this length plus 12" of aluminum edging, which can be purchased from the Strahs Aluminum Company, 60 Walker Street, New York City. Specify No. 737 with your order. Purchase enough battleship-gray linoleum to cover the table and both seats. If another color will harmonize with the surroundings better, substitute it for the gray.

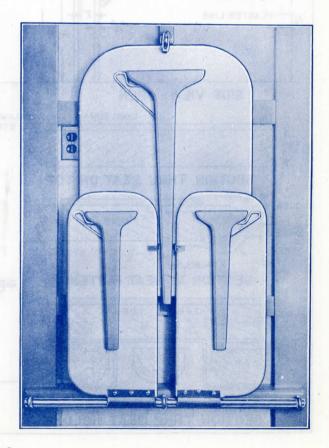
Recess the upper edges of the table and seats to allow the base of the edging to fit flush with the surface. Attach the edging with ½" nails. Cut "V's" in the base of the aluminum to obtain the necessary curves. Bevel the edges of the linoleum to fit the edging and cement it to the tops of the table and seats with linoleum cement.

Shape the outer edges of the $\frac{3}{4}$ " x 4" cleat with the same moulding form given the other parts and attach the cleat to the wall 2' $3\frac{5}{8}$ " above floor level. Use 3" No. 12 flat-head wood screws through the cleat about 6" apart and make sure they catch in the studding. The table is attached with three $1\frac{1}{2}$ " Stanley hinges with $\frac{3}{4}$ " offsets (No. 820). Center their

2" long leaves on the cleat and attach. The table top is then fastened to them, as shown under "Section At Table Hinge."

Shape the outer edges of the $1\frac{1}{2}$ " x 4" cleat with the same moulding form given the other parts. Attach it to the wall directly under the table cleat and 1' $3\frac{3}{8}$ " above floor level. This should be attached with 4" No. 20 screws, which should be turned into the wall studs. Obtain three $\frac{3}{8}$ " diameter 3" or 4" long screw eyes, which will have a $\frac{3}{4}$ " inside diameter. Locate one at each end of the cleat and the third in its exact center. Place the steel rod in position through them and mark on each side of the center screw eye. Bore holes for cotter pins at these points.

Slip the rod through one eye, pass it through the hinge of one seat, slip it through the center eye, pass the second seat on it, and bring the rod out through the other eye. Center it and drop a cotter pin through the center holes on each side of the eye. Obtain a Stanley Snappy Catch (No. 210), attach it to a short cleat, and fasten it to the wall so that the claw of the catch holds the edge of the table firmly, as shown in the side view. Fold up the seats, and then bend a ½" thick and ¾" wide length of steel bar into a seat holder, as shown in the plan. Drill, countersink, and attach it to the underside of the table, as shown. Sand all parts, fill all holes with filler, and apply three coats of lacquer or enamel of desired color or colors.



WINDOW CORNICES

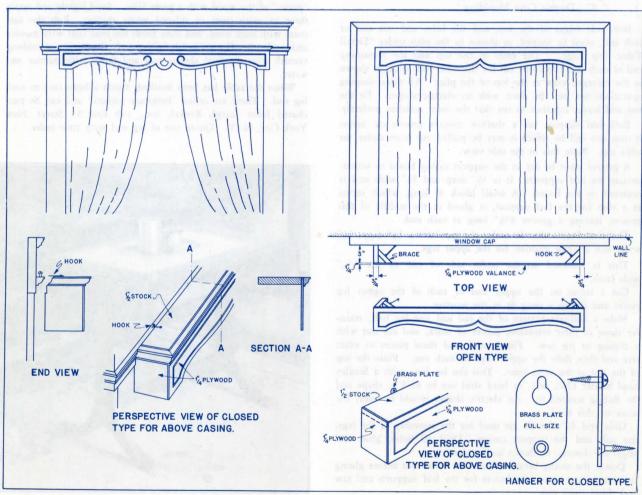
Window cornices, or "curtain valances," as they are often called, give windows and curtains a dressed appearance that nothing else can accomplish. If beautifully designed and correctly made, the cornice will not only hide unsightly curtain poles, fixtures, and shade rollers, but it will also add to the beauty of the room. If closed on the top, the cornice will protect, the curtains and drapes from dust settling on their tops.

The closed type is shown in the plan on the left, while the open one is on the right. The former is recommended for obvious reasons. The front design piece may be of 1/4" plywood. This should be approximately 6" wide and 11/2" longer than the drape pole. Draw a full-size copy of the particular design you wish to use and transfer it to the plywood.

The design is then cut out with a coping or jig saw. Finish the edges and bring the entire board to a satin finish with sandpaper. For the open type of construction, cut two end boards $\frac{3}{4}$ " thick, $\frac{1}{2}$ " wider than the curtain pole projects from the window trim, and as long as the end width of the finished

plywood front. Glue these end pieces behind the design board at its ends, and add the angle blocks to reinforce these joints. Note this assembly in the right plan. A moulding may be added around the top edge. If an electric router is available, a veining groove of pleasing design will enhance the appearance. Hold the cornice with a hook and eye at each end, as shown.

The closed type is constructed with 1/4" plywood ends, as well as the plywood front board. A 1/2" board is cut to fit inside these three pieces. When the window trim has a lower moulding, the end boards and top moulding should be coped for it, as shown on the left under "End View." Small screws are turned into the top edge of the trim moulding and hooks are attached at both ends on the top board to hold the cornice. Small hangers are made of brass or steel to hold the closed type flush to window casings not having lower moulding, as shown on the lower right of the plan. Finish the cornices with lacquer enamel, or in a manner to match the trim.



DROP LEAF COFFEE TABLE

The amateur cabinet-maker with professional tendencies will find in the construction of the small drop leaf table shown here everything his ambitions could desire. It is not only a useful piece of furniture in any home, but if the work is carefully done it will prove one of the most beautiful.

While such a table can be made of any hard wood, walnut or mahogany is recommended. The top will have to be prepared by gluing up stock for it. Square up and dress stock to the following sizes:

Pieces	Thick	Wide	L	ong	Part
1	5/8"	1' 37/8"	1' 1	13/4"	Тор
2	5/8"	5 15"	1'	37/8"	Leaves
2	1"	11/4"	1'	11/2"	Top Cross-braces
1	7/8"	4"	1'	5"	Leaf Support Casing
2	1/2"	7/8"		91/8"	Leaf Supports
2	1/8"	7/8"		11/4"	Leaf Support Wedges
2	7/8"	21/2"	di dan 1	03/4"	Upper Legs
4	7/8"	3 3/4"		93/4"	Lower Legs
1	7/8"	1 3/4 "	1'	5 3/8"	Rail
1	2' 6"	Double	Cove N	Mouldin	ng

Both side edges of the top, and the sides and one end of each leaf, must be shaped, as shown in the plan under "Detail Table Top Edge." The ends of the top and the remaining end of each leaf should be cut for the table leaf joint, as shown in the enlarged view at the top of the plan. All these shaping operations can best be done with an electric shaper. Fit the top and leaves together to see that the joint matches perfectly.

Each leaf support has a shallow concave groove cut across it near one end by which it may be pulled out from under the table top. Note this in the side view.

A groove must be cut in the support casing board to accommodate the leaf supports. It is $\frac{1}{2}$ " deep and $\frac{16}{5}$ " wide and is centered on the board. A small block 4" long, which serves as a stop for the leaf support, is glued in the middle of this groove, leaving a groove $6\frac{1}{2}$ " long at each end.

The cross-braces that fit under the top have a $\frac{1}{2}$ " deep, $\frac{1}{2}$ " wide, and 2" long mortise, for the upper legs.

This is centered on the under side of one of the $1\frac{1}{4}$ " wide faces.

Cut a tenon on the upper end of each of the upper leg pieces and obtain a snug fit in the mortise.

Make a full-size pattern of the rail and one leg half, transfer these to their respective pieces of stock, and cut out with a coping or jig saw. Finish and sand these pieces to exact size and then flute the upper edge of each one. Flute the top of the rail at the same time. This can be done with a Stanley hand beader (No. 66), or hard steel can be filed to shape and the fluting scraped in. An electric shaper would be ideal for work of this kind.

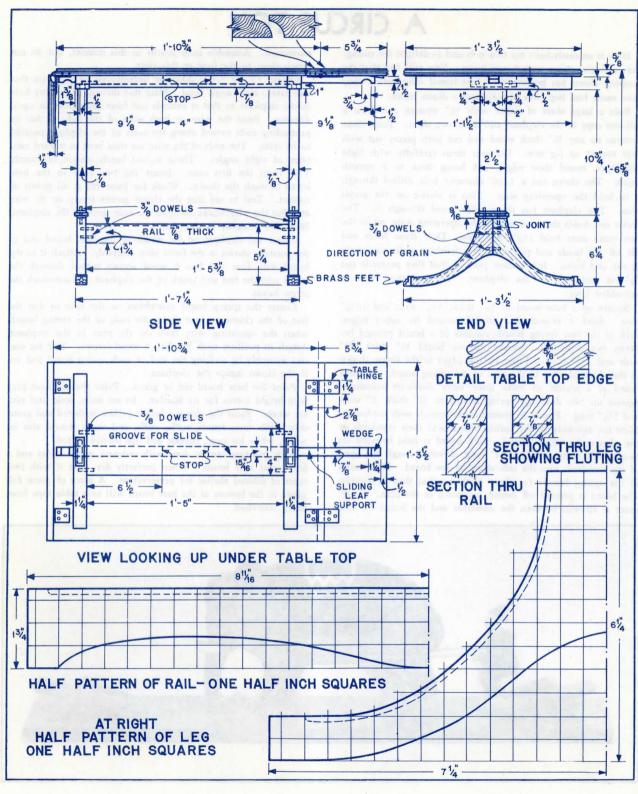
Glue and $\frac{3}{8}$ " dowels are used for the assembly of the legs, the rail, and the support casing. Drill all holes, glue, and insert the dowels, as shown in the plan.

Dowel the casing between the cross braces but before gluing lay out the cut across the braces for the leaf supports and saw and chisel them out. Glue and dowel the casing between the cross-braces. Drill screw holes, countersink them, and screw the assembly to the under-side of the top using flat-head screws. Glue and dowel together the two half legs of each lower leg unit, and then join the upper leg pieces to them in the same manner. Mitre and fit a double cove moulding over this joint on all four sides of each leg. This moulding can be made by hand carving or with a "55" plane or an electric router-shaper. Cut four pieces for each leg, and glue and nail in place. Finish the leg assemblies by gluing and doweling the rail between them.

Glue the tenons of each of the legs in the mortises cut for them in the cross-braces. Attach each leaf with two $1\frac{1}{4}$ " Stanley table hinges (No. 819). Note their positions in the plan. Pull each support out from under the table top, mark the location of each on the under side of the leaf, and then shape the small blocks into wedges and glue them in position on the under-side of the leaves. Bring all parts to a satin finish with sandpaper. Apply a coat of the proper stain. Fill the "pores" of the wood with a paste filler. Sand lightly and apply three or more coats of diluted white shellac. Rub the first coats with steel wool, and then finish the final coat with pumice and crude oil. For a varnish finish, apply three coats of rubbing varnish after the final shellac coat and finish with pumice and water.

When the table has been finished, attach a brass foot to each leg end. These are called "furniture sockets" and can be purchased from Joseph Renkel, Inc., 149 East 53 Street, New York City, N. Y. Quote size of leg end with your order.





A CIRCUS TOY

Here is an easily-built toy that is bound to delight the youngsters and give them many happy hours. You will find that the jumping clown has become their best friend long before they have made him hop over his elephant a dozen times.

Rule a large sheet of paper with ½" squares and draw a full-size copy of the elephant and the clown on it. Trace these patterns on any ½" thick wood and cut both pieces out with your coping or jig saw. Go over them carefully with light sandpaper, round their edges, and bring them to a smooth finish. The clown has a 1/16" diameter hole drilled through it to hold the operating wire. This is shown on the graph plan. The elephant has three holes bored through it. The center one holds the other end of the operating wire, while the two outer ones hold 1½" steel pins. Drill these holes and file off the heads and points of two finishing nails to snugly fit the end holes. Insert these pins so that they protrude out ½" on each side of the elephant. The operating wire is assembled later.

Square up a base board to \(\frac{1}{2}\)" thick, \(3\frac{1}{2}\)" wide and \(19\frac{1}{4}\)" long. Sand it smooth and slightly round its upper edges. Each of the two spring boards consists of a board pivoted between two standards. Square up one board 1/2" thick, 15" wide and 218" long. Taper its top edges to the shape shown in the enlarged view in the plan of the spring board. Use this board as a master to make three more duplicate standards. Square up two duplicate spring boards to \(\frac{3}{16}\)" thick, 1" wide and 35%" long. Finish all these boards smooth with sandpaper. Note the assembly of the spring boards and their standards in the plan under "End View." Each board is held between its two standards by two brads 1" long, driven through the apex of the standards into the side edges of the board. Drill holes in the spring boards for these brads so that they fit loosely. The board is pivoted off center, as shown in the plan. A 16 space is allowed between the standards and the board for free

movement. Assemble both boards in this manner, but do not attach them to the base at this time.

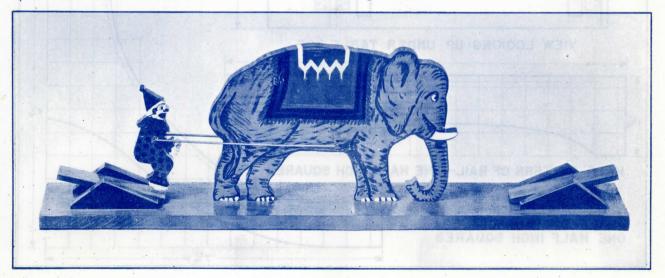
Obtain 13" of 3/64" diameter untempered spring wire that will take a right angle bend. Place this through the center hole in the elephant so that it extends out from both sides an equal distance. Bend the wire on both sides of the hole so that its protruding ends extend along the sides of the elephant parallel to its sides. The ends of the wire are then bent in toward each other at right angles. These second bends should be exactly 5%" from the first ones. Insert the two ends in the hole bored through the clown. Work for loose fits at all points of contact. Test to see that the clown moves freely on its wire and that the wire works easily in the hole through the elephant. Note this assembly in the plan.

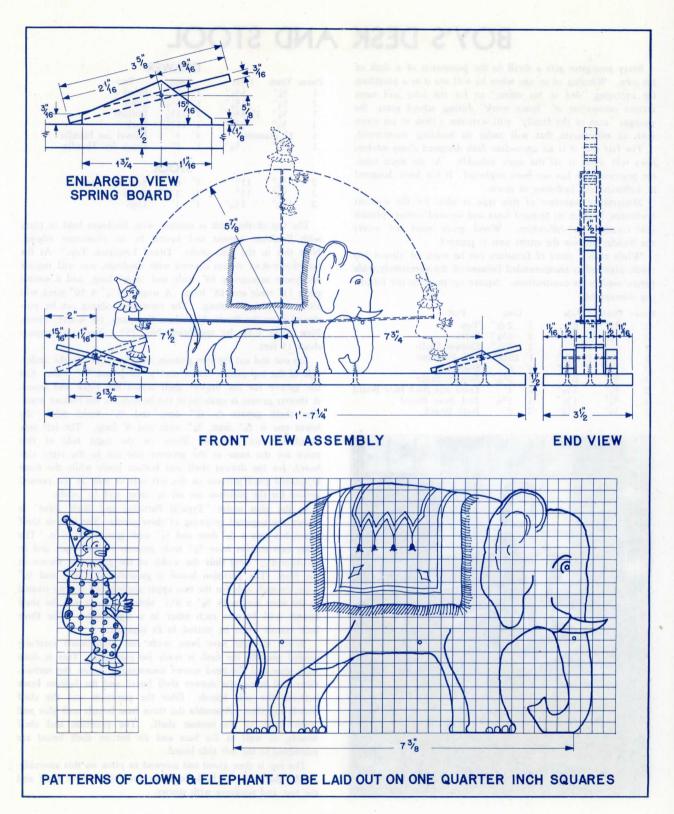
Center the elephant on the width of the base board and in the position shown in the front view assembly. Attach it to the board with four ¾" No. 6 wood screws turned through the board into the feet and trunk of the elephant. Countersink the screw heads.

Center the spring board assemblies on the base so that the feet of the clown are just above the ends of the spring boards when the operating wire rests on the pins in the elephant. Attach in position with 3/4" No. 6 wood screws. Test for correct assembly by striking the end of each spring board and see if the clown jumps the elephant.

Paint the base board red or green. Paint the elephant gray with bright colors for its blanket. Its toe nails, tusk, and eyes are white. Paint the clown a bright yellow with red and green dots. His face, hands, ruffle, cuffs, and shoes should also be white, while his nose, cheeks, and lips should be red.

Such painting can be done with ordinary water colors and a fine camel hair brush. When perfectly dry, coat it with two coats of diluted shellac for preservation. A piece of green felt glued to the bottom of the base board will save table tops from being scratched.





BOY'S DESK AND STOOL

Every youngster gets a thrill in the possession of a desk of his own. Whether of an age when he will use it as a plaything for imitating "dad in his office," or for the later and more serious occupation of "home work" during school years, the younger "man of the family" will welcome a desk in his room with an enthusiasm that will make its building worthwhile.

The fact that it is an up-to-date desk designed along modern lines will make it all the more valuable. At the same time, the practical side has not been neglected. It has been designed to withstand the buffeting of youth.

Modernistic furniture of this type is ideal for the amateur craftsman, because its straight lines and squared corners present few construction difficulties. Wood grain need not worry the builder because the entire unit is painted.

While such a piece of furniture can be made of almost any stock, plywood is recommended because of the excessively wide pieces used in its construction. Square up stock to the following dimensions:

Pieces	Thick	Wide	Long	Part
1	3/4"	1' 6"	3' 216"	Top
2		1' 6"	2' 01/4"	Sides
1	1/2"	1' 6"	2' 01/8"	Drawer Shelf
1	1/2"	1' 116"	1' 1011"	End Partition
3	1/2"	1' 11/8"	1' 6"	Shelves
1 .	3/4"	6"	2' 01/8"	Bottom Brace
2	3/4"	11/8"	1' 1"	
1	3/4"	1 1/8"	1' 57/8"	End Base Board
1	1/2"	33/4"	2' 0"	Back Board



DRAWER

Pieces	Thick	Wide	J	Long	Part
1	3/4"	33/4"	2'	0"	Front
2	1/2"	3 3/4"	1'	51/4"	Sides
1	1/4"	1' 41/2"	1'	111/2"	Bottom
1	1/2"	33/4"	1'	111/2"	Back
1	1" dia	meter	1'	1"	Dowel for Handle
1	1/2"	5/8"	1'	1"	Brace for Handle
			S	TOOL	
2	1/2"	11"	1'	6"	Seat and Bottom
2	1/2"	11"	1'	11/8"	
-	11/11	1 11/11	- 1	- 11	The state of the s

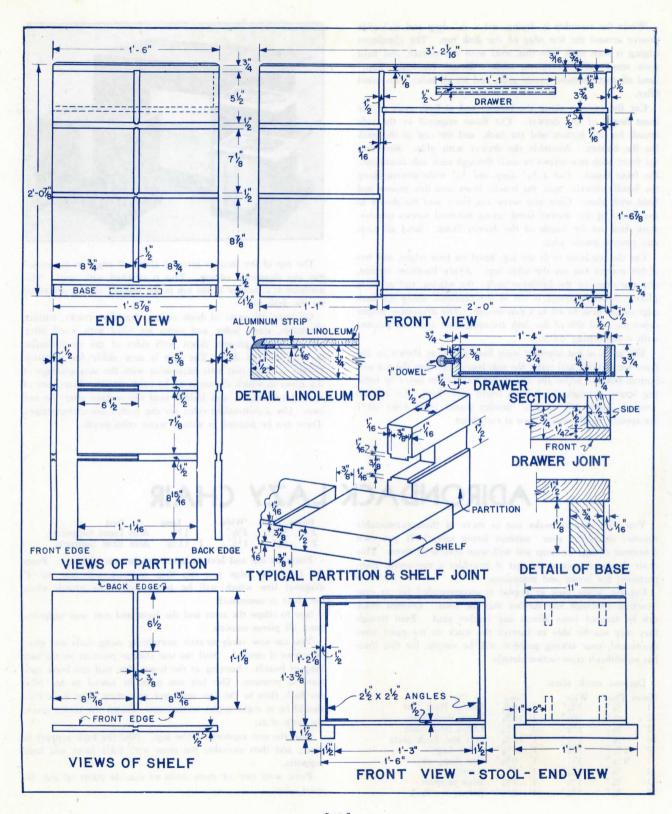
The top of the desk is covered with linoleum held in place with linoleum cement and bound by an aluminum edging. Note this in the plan under "Detail Linoleum Top." As the top of the stool is also covered with linoleum, you will require one piece measuring 18" wide and 38½" long, and a second piece 11" wide and 18" long. A single 18½" x 50" piece will allow for proper cutting. The aluminum edging can be purchased from the Strahs Aluminum Company, 60 Walker Street, New York City, by specifying No. 737. You will require about 15 feet.

Lay out and cut the two grooves and the rabbet on the underside of the top piece. These are $\frac{1}{8}$ " deep and $\frac{1}{2}$ " wide. Cut the groove for the drawer shelf across the right end board. A shorter groove is centered at the bottom for the bottom brace. The shelf groove is $\frac{1}{16}$ " deep and $\frac{1}{2}$ " wide, while the lower one is $\frac{1}{16}$ " deep, $\frac{3}{4}$ " wide and 6" long. The left side board has six grooves. Those on the right side of this piece are the same as the grooves just cut in the right side board, for the drawer shelf and bottom brace while the three horizontal shelf grooves on the left side as well as the vertical groove for the partition are all $\frac{1}{16}$ " deep and $\frac{1}{2}$ " wide.

In the plan under "Typical Partition and Shelf Joint" is shown the required grooving of these pieces. The bottom shelf board has only a $\frac{1}{16}$ " deep and $\frac{1}{2}$ " wide groove cut in it. The other two shelves have $\frac{3}{6}$ " wide grooves on each side and in addition $6\frac{1}{2}$ " long slots the width of the groove as shown in the plan. The partition board is grooved, $\frac{1}{16}$ " deep and $\frac{1}{2}$ " wide, on each side for the two upper shelves and is then treated in the same way with $\frac{3}{6}$ " x $6\frac{1}{2}$ " slots so that it and the shelf boards will fit into each other in a tight joint. The three base boards must be mitred to fit together.

When all cuts have been made and each board carefully sanded smooth, the desk is ready for assembly. This is done with glue and flat-head screws countersunk below the surface. Glue and screw the drawer shelf board and the bottom brace between the side boards. Glue the partition and the shelf boards together. Assemble the three base boards and glue and screw them to the bottom shelf. The partition and shelf boards, as well as the base and its bottom shelf board are assembled to the left side board.

The top is then glued and screwed in place on this assembly. Apply glue, slip the back board between the drawer shelf and the top, and reinforce with screws.

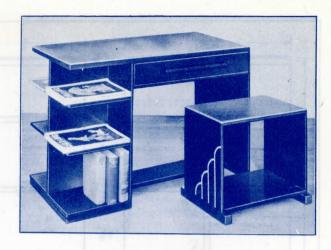


While the assembly is drying, cut a ½" deep and ½" wide groove around the top edge of the desk top. The aluminum edging is then sunk into this, level with the surface, and held with small nails, as shown under "Detail Linoleum Top." Sand all parts, remove excess glue, and fill all holes with wood filler.

Cut the grooves along the bottom and at both ends of the front board of the drawer. Cut those required in the side boards for the bottom and the back, and the one in the back for the bottom. Assemble the drawer with glue. Reinforce the front with two screws or nails through each side board into the front board. Cut a ½" deep and ½" wide groove along the handle dowel. Sink the handle brace into this groove and hold with glue. Glue and screw the brace and the dowel to the center of the drawer front, using flat-head screws countersunk flush on the inside of the drawer front. Sand all parts and remove excess glue.

Cut the linoleum to fit the top, bevel its four edges, and test it for correct size on the table top. Apply linoleum cement, slip the edges of the linoleum under the edging, and press in place. A small groove is cut in the linoleum along the back edge of the desk to act as a pen trough. The decorative stripes down the solid side of the desk are routed out and later painted with a contrasting color.

The stool is put together with butt joints, as shown in the front view. Glue and screw the side boards between the top and bottom boards. Screw the legs under the bottom board by turning screws through the bottom board into them. For surplus strength, eight $2\frac{1}{2}$ " x $2\frac{1}{2}$ " Stanley corner irons (No. 997) are applied on the inside, two at each joint.



The top of the stool is grooved along all edges to accommodate the aluminum edging. This is attached with nails. The linoleum is cemented to the top in the manner already described for the desk top.

Go over all parts of both units. See that cracks, surface blemishes, screw holes, and joints are filled with wood filler. Cut decorative grooves down both sides of the stool similar to those on the desk. The unit is now ready for painting. Choose a color that will harmonize with the surroundings of the room in which the set is to be used. Apply three coats of enamel or lacquer, and lightly sand the surface after the first two. Use a contrasting color for the routed decorative stripes. These can be painted in with a water color brush.

ADIRONDACK LAZY CHAIR

You will want to make one or more of these comfortable summer chairs for your "outdoor living room." If you own a summer cottage or camp you will want several of them. This chair design is unique in that it provides a convenient compartment for books and magazines.

Cypress, white pine or poplar is recommended for its construction although any lumber may be used. Dressed stock can be secured from almost any lumber yard. Even though they may not be able to furnish the stock to the exact sizes mentioned, your sawing problem will be simple, for this chair has no difficult construction details.

Dressed stock sizes:

Pieces	Thick	Wide	Long	Part
1	3/4"	33/4"	3' 03/4"	Center Back Slat
2	3/4"	33/4"	2' 103/4"	Inner Back Slats
2	3/4"	3 3/4"	2' 83/4"	Outer Back Slats
10	3/4"	3 3/4"	1' 103/4"	Seat and Rack Slats
2	13/4"	23/4"	1' 101/4"	Front Legs
2	11/8"	5"	3' 03/4"	Seat Supports
2	3/4"	5 3/4".	2' 3"	Arms
1	3/4"	1 3/4 "	2' 13/4"	Back Support
1	3/4"	1 3/4"	1' 81/2"	Batten for Back

Pie	ces Thick	Wide	Long		Part
2	3/4"	21/2"	12"	Arm	Front Supports
2	3/4"	$1\frac{1}{2}''$	1' 111/2"	Arm	Rear Supports

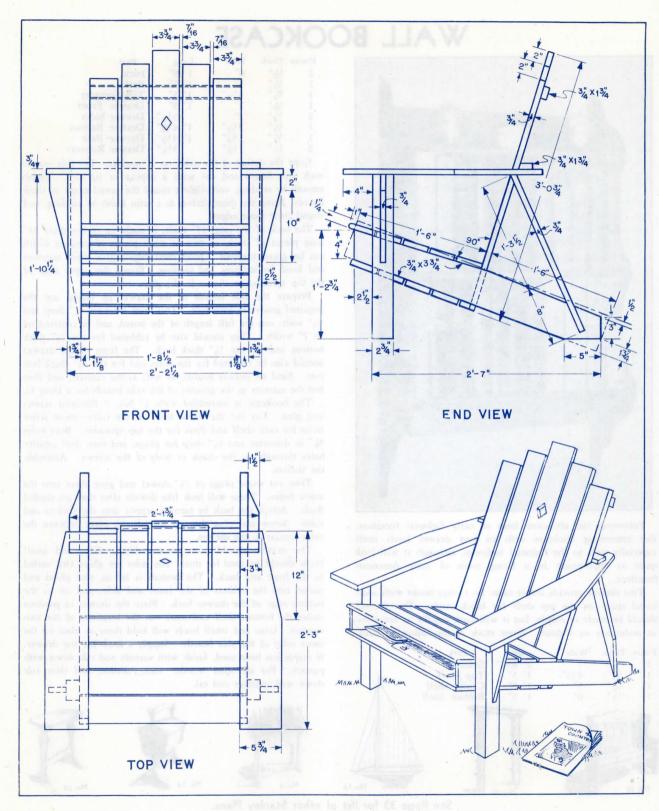
Plane the top and bottom tapers on the seat supports. From the front top edge you can then measure and saw the 4" diagonal line which will be perpendicular or plumb when the chair is assembled.

Saw to shape the arms and the front and rear arm supports. Sand all pieces smooth.

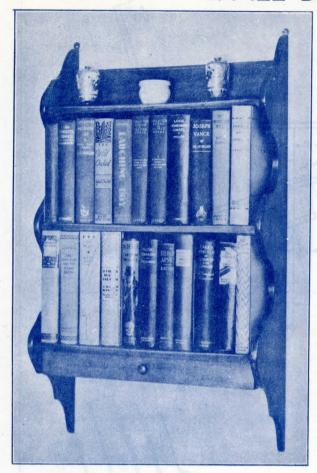
You are now ready to start assembling using nails and glue, or screws if desired. Nail the seat slats in position on the seat support boards. Starting at the front edge nail the book rack slats in position. The last one must be sawed to fit. Nail the back slats to the last seat, and rack slats. The back slats should be at right angles to the seat. Fasten the batten across the back slats.

Nail the seat supports to the legs. Nail the back support in place, and then assemble the arms with their front and back supports.

Paint with two or three coats of outside paint of any desired color.



WALL BOOKCASE



Following the attractive lines of early Colonial furniture, this interesting bookcase with its tiny drawer lends itself especially well to the Colonial bedroom, although it will look quite as appropriate in a living room of early American furniture.

Two shelves provide ample room for twenty books with additional space on the top shelf for knick-knacks. This project should be made of maple, but it will look equally as attractive in mahogany or walnut. Dress stock to the following sizes:

Pieces	Thick	Wide	Long	Part	
2	1/2"	7"		Sides	
1	1/2"	41/2"	2' 6½" 1' 5"	Top Shelf	d
1	1/2"	5"	1' 5"	Center Shelf	
1	1/2"	6"	1' 5"	Bottom Shelf	
				# :	
No. 21			No. 22		No. 18

Pieces	Thick	Wide	Long	Part
2	1/2"	6"	1' 6"	Back
-1	1/2"	5"	1' 6"	Back
1	3/4"	31/4"	1' 5"	Top Spreader
1	1/2"	2"	1' 5"	Drawer Front
2	1/2"	2"	51/2"	Drawer Sides
1	1/4"	51/2"	1' 41/2"	Drawer Bottom
1	1/4"	13/4"	1' 41/2"	Drawer Back
2	1/4"	1/2"	51/4"	Drawer Runners

Copy the design of the sides on 1" squares. Lay this out on each side board and cut with a coping or jig saw. Finish smooth by sanding, and slightly round the sawed edges of these boards. Bring the three shelves to a satin finish by sanding, and round their front edges.

The back of the case, 17" wide, is made up of the three 18" long pieces of stock, or two or more pieces of random width can be glued together. Joint their edges, glue them together and finish by scraping and sanding. Round the upper edge of the top spreader as shown in the plan.

Prepare the side boards of the drawer by laying out the required groove in each side. This must measure $\frac{1}{4}$ deep and $\frac{1}{2}$ wide, run the full length of the board, and be centered on its 2" width. They should also be rabbeted for the $\frac{1}{4}$ " thick bottom and for the $\frac{1}{4}$ " thick back. The front of the drawer should also be rabbeted for the sides and for the $\frac{1}{4}$ " thick bottom. Sand all drawer boards, as well as the runners, and then test the runners in the grooves of the side boards for a loose fit.

The bookcase is assembled with 1" No. 7 flat-head screws and glue. Lay out the screw holes in the sides—three screw holes for each shelf and three for the top spreader. Bore holes $\frac{3}{8}$ " in diameter and $\frac{1}{8}$ " deep for plugs, and then drill smaller holes through for the shank or body of the screws. Assemble the shelves.

Then cut wood plugs of 3/8" dowel and glue them into the screw holes. These will look like dowels after they are sanded flush. Attach the back by turning screws into the shelves and sides. Screw and plug the top spreader in place between the sides similar to the shelves.

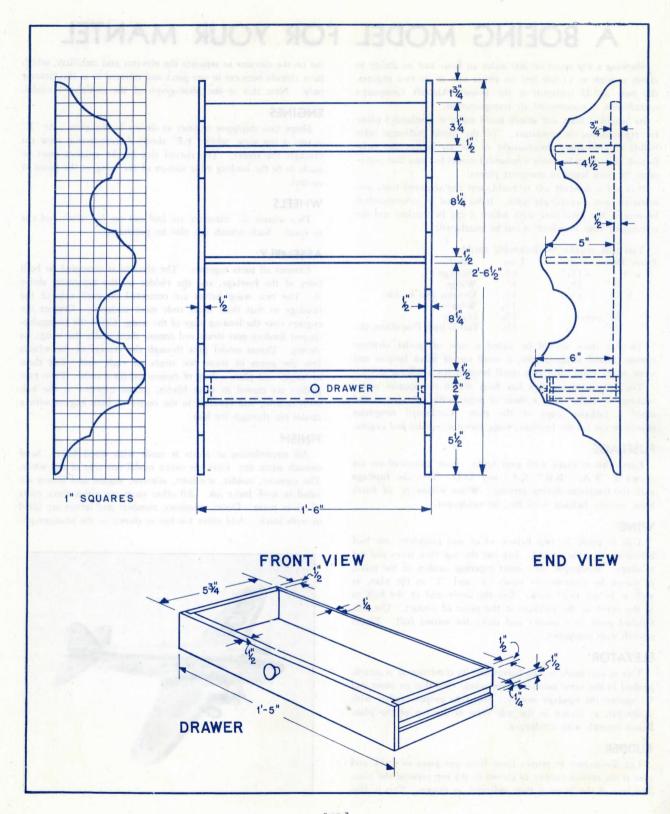
The drawer should now be assembled. Glue and small brads should be used for this. The sides are glued and nailed to the front and back. The bottom is let in, and glued and nailed into the rabbets of the front and sides and on to the bottom edge of the drawer back. Place the drawer in position under the bottom shelf and mark out the locations of the two runners. Glue and small brads will hold these in place on the inner sides of the side boards. Supply a knob for the drawer. If maple has been used, finish with varnish and rub down with pumice. For all other woods: stain, shellac, and then rub down with pumice and oil.







See Page 33 for list of other Stanley Plans.



A BOEING MODEL FOR YOUR MANTEL

Showing a top speed of 200 miles an hour and an ability to climb as high as 11,500 feet on either one of its two engines, the new 247-D transport is the Boeing Aircraft Company's contribution to commercial air transportation.

Its beautiful lines and sturdy build make it a splendid plane for reproduction in miniature. To the home craftsman who builds it, this latest dreadnaught of the air brings the satisfaction of owning not only a beautiful model but one that represents the very latest in transport planes.

It is not a difficult job to build, and the required tools and materials cost surprisingly little. Balsa wood is recommended, because of the great ease with which it can be worked and the convenient sizes in which it can be purchased.

You will require the following stock:

Pieces	s I nick	Wide	Long	Part
1	1"	1 1/4"	81/2"	Fuselage
2	16"	23/4"	6"	Wings
1	3/32"	1 1/2"	51/4"	Elevator and Rudder
1	1/8"	5/8"	1 1/4 "	Wheels
1	13"	square	23/8"	Engines
1	16"	1/2"	3 1/2"	Tail Wheel, Propellers, etc.

To this stock should be added a tube of model airplane cement, model airplane pins, a small can of black lacquer and some silver paint, and two small brushes for applying it.

The accompanying plan has been drawn on squares representing $\frac{1}{2}$ " each. Rule a sheet of paper with $\frac{1}{2}$ " squares and make a full-size copy of the plan. Cardboard templates should be cut for the fuselage, wing, elevator, rudder and engine.

FUSELAGE

Carve this to shape with your knife. Four cross-sections are shown at "A-A," "B-B," "C-C" and "D-D." Test the fuselage with the templates during carving. When within \(\frac{1}{16}'' \) of finish lines, remove balance with No. 00 sandpaper.

WING

This is made in two halves. Cut and complete one half before starting the second. Lay out the top view form and cut to shape. Sandpaper the correct tapering camber of the piece, as shown by cross-section views "1" and "2" in the plan, as well as in the front view. Cut the inner end of the half to fit the curve of the fuselage at the point of contact. Use this finished piece as a master and make the second half. Finish smooth with sandpaper.

ELEVATOR

This is also made in two halves and its construction is accomplished in the same manner as the wing. See that its inner end fits against the fuselage snugly. Shape to proper camber with sandpaper, as shown in the side view at the top of the plan. Finish smooth with sandpaper.

RUDDER

Cut the rudder to proper form from one piece of stock and give it the correct camber as shown in the top view of the plan. The line of the hinge is then indented, as shown. This is also cut on the elevator to separate the elevator and stabilizer, which have already been cut in one piece and referred to as the elevator only. Note this in the photograph of the completed model.

ENGINES

Shape two duplicate engines as shown in the plan. At "E" is seen a top view, while "F-F" shows a cross-section view cut through the center. The curved slot in the engines must be made to fit the leading edge section of the wing at the point of contact.

WHEELS

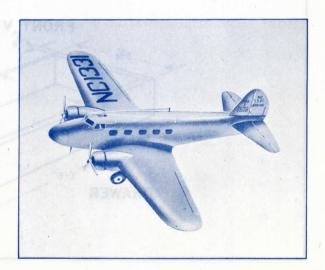
Two wheels $^{16}_{16}$ " diameter are laid out on $^{1}\!\!/_{8}$ " stock and cut to form. Such wheels can also be purchased.

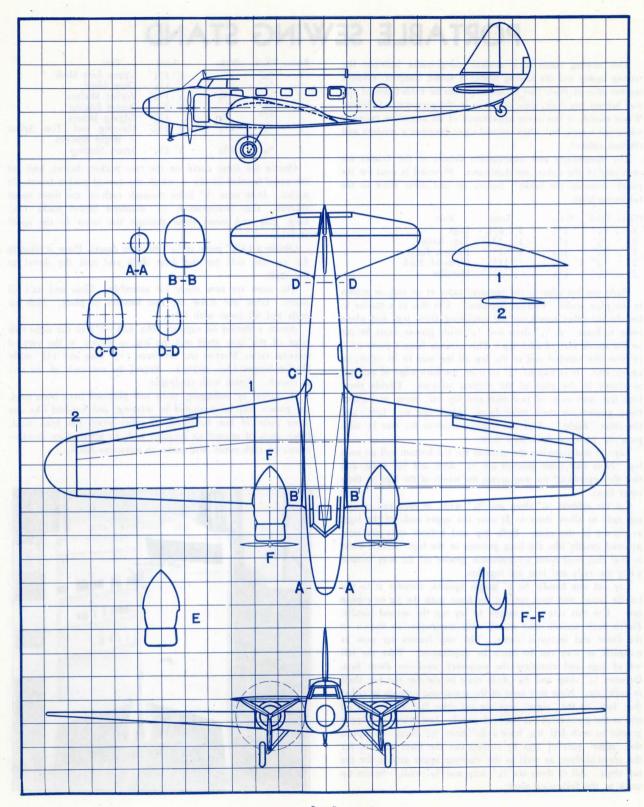
ASSEMBLY

Cement all parts together. The elevator is cemented on both sides of the fuselage, and the rudder on the top-center above it. The two wing halves are cemented on each side of the fuselage so that their inner ends meet under it. Cement the engines over the leading edge of the wing. Carve the triangular-shaped landing gear struts and cement them under the wings, as shown. Thrust model pins through the centers of the wheels into the joints of these two struts on each unit. Cut them to length and place a drop of cement on their ends. Twin propellers are carved in three blades, joined together at the hub with cement, and fastened to the center of each engine with a model pin through the hub.

FINISH

All streamlining at joints is made with wood filler. Sand smooth when dry. Give the entire model one coat of flat white. The elevator, rudder, windows, ailerons, engine and letters are ruled in with India ink. All other parts are given three coats of silver paint. Doors, windows, numbers and letters are filled in with black. Add other touches as shown in the photograph.





PORTABLE SEWING STAND

This sewing stand is a modern compromise between the sewing basket and the sewing table. A small, compact, efficient combination of these two extremes, it can be folded out of the way behind any door, sofa, chair, or in the narrowest of closets. When closed, it has every appearance of an attractive twin-leg miniature screen, but when opened up it becomes a modern and efficient cabinet.

The dimensions and construction details of the frames for each side of the screen are duplicates. Plywood is used for the panels forming the backs. Square up and dress stock to the following sizes:

Pieces	Thick	Wide	Long	Part
4	3/4"	11/2"	2' 61/8"	Legs
2	3/4"	1 1/2"	1' 31/4"	Top Rails
2	3/4"	1 1/2"	1' 121/4"	Bottom Rails
2	1/4 "	1' 21/4"	1' 111/2"	Plywood Back
2	1/2"	17/8"	81/2"	Handles

Plane one leg edge to the required taper at its end, as shown in the plan under "Vertical Sections." Use this as a master to lay out the other tapers on the remaining three legs and plane these to form. A $\frac{1}{4}$ " deep and $\frac{1}{4}$ " wide groove must be cut on the inside face of each leg. This extends from a point $6\frac{1}{2}$ " in from the tapered end of the leg all the way to its other, or upper, end. It is located $\frac{1}{4}$ " in from the back edge of the leg, as shown in the plan of the vertical sections. Divide these four legs into units of two each and lay out, plane, and chisel these grooves on their inner faces. Mark one set "Left" and the other "Right." Test the finished grooves for size by slipping the plywood back into them.

Lay out and complete the grooves for the bottom rail on each leg. Note that these grooves are \(\frac{1}{4}\)" deep and \(\frac{3}{4}\)" wide, and that they extend all the way across the width of the legs on their inner faces.

Cut the rabbets $\frac{3}{8}$ " deep and $\frac{3}{4}$ " wide, at each end of the top rails to allow them to fit over the upper ends of the legs, as shown in the plan. Both top and bottom rails are now grooved exactly like the long grooves in the legs. Locate these so that they will form a continuous groove all the way around when the rails and legs are together.

Lay out one handle on 1" graph squares, transfer it to the handle board, and then cut out the form with the jig or coping saw. Use this one as a master to lay out the second handle. Finish both smooth and round with sandpaper, as shown in the front and sectional views. The two frames are now as complete as they can be made by duplication. Take the left set of legs and complete the necessary work on them first. Grooves 1/4" deep and 3/8" wide must be cut for the top shelf in each one. Note that none of the remaining grooves in either the "left" or the "right" legs are cut their full width, but all end at the groove cut for the back panel. Just below the upper groove in each left leg, bore a 16" hole 1/4" deep. Complete the "right" pair of legs by cutting out the three grooves for the spool shelves, as well as the slanting upper groove for the top shelf. All of these are 1/4" deep and 3/8" wide. Square up stock to the following sizes:

	Pieces	Thick	Wide	Long	Part
	1	3/8"	1"	1' 21/4"	Upper Left Shelf
	1	1/2"	6"	1' 11/4"	Drop Shelf
	2	1/2"	1 3/4 "	1' 13/4"	Pocket Shelves
1	2	1/8"	2"	1' 2"	Pocket Edging
	4	1/2"	7/8"	1 1/2"	Edging Braces
	2	3/8"	11/4"	1' 21/4"	Slanting and Top Spool
					Right Shelves
	2	3/8"	1 3/8"	1' 21/4"	Spool Shelves

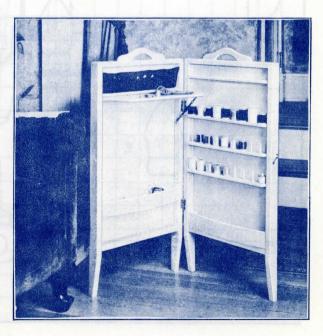
Obtain the front curve on the two pocket shelves, and cut the small beveled blocks to which the curved pocket fronts are nailed. Bore nine $\frac{7}{16}$ " holes through each of the three spool shelves. Cut twenty-seven $\frac{7}{16}$ " diameter dowel sticks 15%" long, glue and insert them through the holes in the spool shelves.

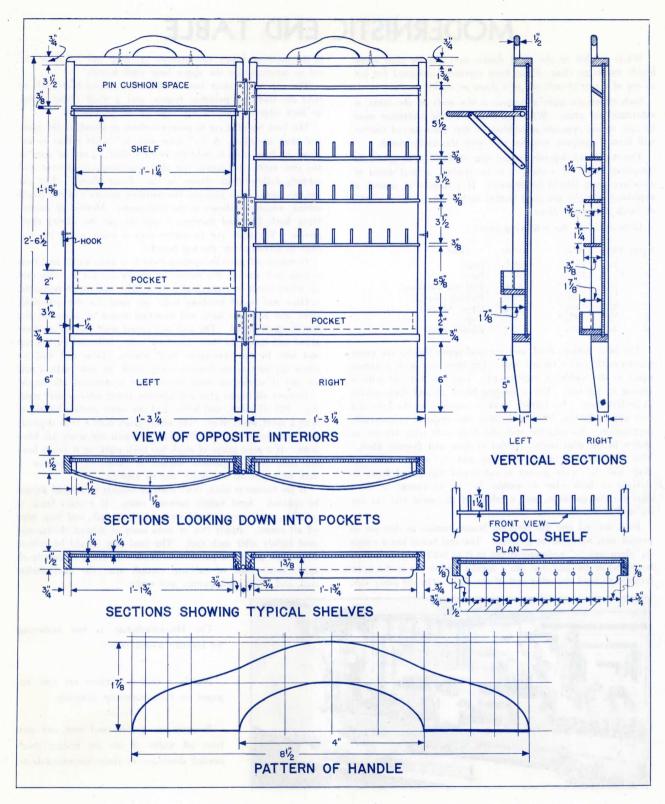
Obtain a $14\frac{1}{4}$ " piece of $\frac{1}{2}$ " diameter dowel. Plane it slightly flat on one side for the drop shelf and nail the dowel to the shelf.

The sides are now ready for assembly. Glue and nail all joints. Glue and screw the two handles in place. Sink all nails and fill holes with filler.

Attach a Stanley lid support (No. 428—6") to the right side edge of the drop shelf and the leg, as shown in the vertical sections view. Mortise and set three $2\frac{1}{2}$ " long and $1\frac{11}{16}$ " wide Stanley hinges (No. 295 $\frac{1}{2}$). Round the top ends of the rail as shown. Finish with sandpaper.

If walnut or mahogany stock and plywood have been used, the panels may be decorated by inlaying, and finished like any other piece of fine furniture. If other wood has been used, three coats of enamel or lacquer, with an appropriate decalcomania on each panel, will make an attractive finish.





MODERNISTIC END TABLE

While a table of the form shown here can be used alone beside any large chair, it has been especially designed for use as one of a pair at each end of a divan or studio couch.

Such tables are quite attractive at the ends of the latter as substitutes for arms. When used in pairs, the craftsman must be sure to use opposite assemblies so that their curved shelves will form a compact, rounded unit with the studio couch.

The stock used depends on the type of finish to be given the completed table. If a stain is to be applied, a hard wood of attractive grain should be obtained. If a lacquer or enamel is applied, practically any good lumber such as pine, poplar, maple, or birch may be utilized.

Dress stock to the following sizes:

Pieces	Thick	Wide	Long	Part
1	5/8"	25 1/8"	287/8"	Back
1	1"	10"	30"	Base
2	5/8"	81/2"	247/8"	End and Partition
1	1/2"	91/8"	291/2"	Bottom Shelf
2	5/8"	81/2"	201/4"	Open Shelves
1	5/8"	87/8"	87/8"	Top
1	5/8"	81/8"	81/2"	Closed Shelf

The base, bottom shelf, and the two upper shelves are given quarter-circle forms on one end. Lay these out with a radius equal to the width of each board. They are cut out with a coping or jig saw. Use a sanding block around these curves to perfect them. No further work is required on the base and two upper shelves, but the bottom one requires considerable preparation. Its rounded end and front side edge are cut as shown in the plan under "Detail of Base and Bottom Shelf." This consists of a rabbet ½" deep and ½" wide. One ½" deep and ½" wide groove is cut across this board from its straight or back edge to within 5%" of its curved or front edge for the partition, and a rabbet of the same size cut for the end as shown under "Sections."

Both the end and the partition boards remain as they are in overall size, but must be grooved. The end board has a single $\frac{1}{4}$ " deep and $\frac{5}{8}$ " wide groove cut in it to hold the closed shelf board, while the partition has a similar groove cut in the same location to hold the other end of the shelf. On the other side

of the partition board, two grooves 1/4" deep and 5/8" wide are cut to accommodate the upper long shelf boards.

The top board must have a rabbet cut along both ends to hold the end and partition boards, and a third rabbet along its back edge to hold the top edge of the back board.

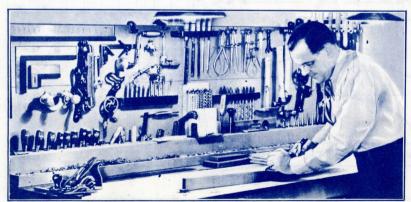
The back board is cut to proper outline, as shown in the plan, and then grooved. A ½" deep and ½" wide rabbet is cut along its base edge to hold the bottom shelf, as can be seen in the end view. In laying out the remaining six grooves and rabbets, follow those shown in the "Front View." Lay out the two upper shelf grooves, the partition groove and end board-rabbet, which are shown in the plan under "Method of Assembling Back End and Partition," and lay out the closed shelf groove. The sixth cut (a rabbet cut) is made along the top edge to accommodate the top board.

Complete all parts by sanding them to a satin finish, and then testing each part in the particular groove cut for it. See that all joints result in right angles, fit snugly, and match perfectly.

Glue and small finishing nails are used for the assembly. Glue and nail the back and partition board in place on the bottom shelf board. The end and closed shelf boards are then glued and nailed to their adjoining parts, followed by the top and later by the two upper shelf boards. Glue and nail, or screw the base to the bottom shelf. Sink all nails with a nail set and if screws are used in the base countersink the heads.

Remove all excess glue and give the entire table a final sanding. Fill all joints, nail holes, and any other surface blemishes with a good wood filler. The finish given such a table depends upon the stock used and the way in which the work has been done. If a poor grade of stock has been used, or if joints have not been true, a painted surface is indicated, otherwise a dark stain and oil rub finish may be applied.

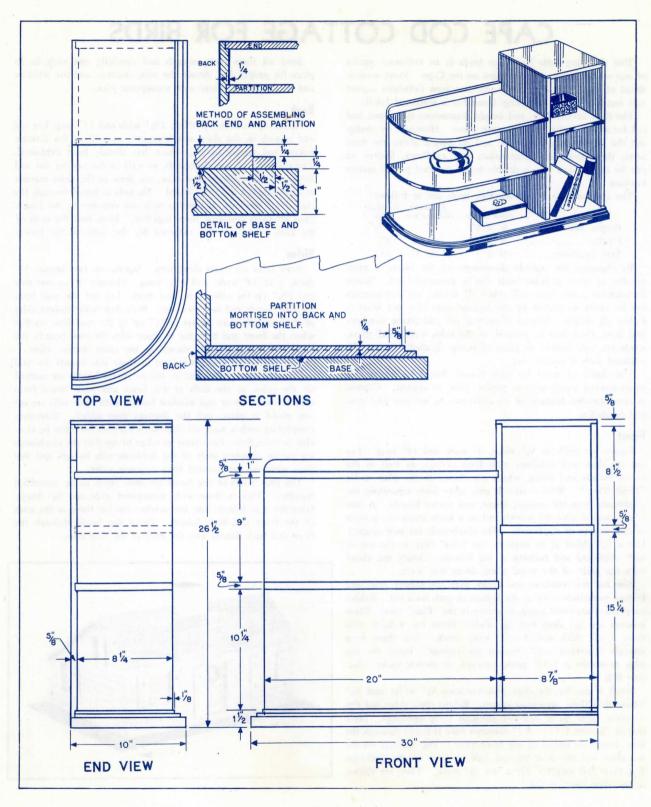
If the former is used, three coats of lacquer or enamel should be applied. Sand lightly between coats. If a stain finish is possible, apply a coat of the stain, allow to soak, and then wipe off all excess. Apply two or more coats of diluted shellac and sand lightly after each coat. The final coat should be rubbed down with powdered pumice and crude oil. For a varnish finish apply three coats of rubbing varnish after the final shellac coat, and finish with pumice and water.



The Homeworkshop is fast becoming the favorite winter resort.

Nearly a million persons are now engaged in homeworkshop activities.

Business and professional men, and men from all walks of life are finding much needed diversion in their homeworkshops.



CAPE COD COTTAGE FOR BIRDS

This charming little house for birds is an authentic replica of one of America's oldest cottages on the Cape. Every outside detail of that fascinating old house has been faithfully copied and included in this tempting home for a feathered family.

The floor cavity, door, and height dimensions have been laid out for wrens in the accompanying plans. However, by changing the inside partitions, door, and its height above the floor level, the house will accommodate tree swallows, finches, or can be modernized into a double house for two purple martin families.

The specifications for these other birds are as follows:

Bird	Floor	Space	Entrance Above Floor	Entrance Dia.
Purple Martins	6"	x 6"	1"	21/2"
Finches	6"	x 6"	4"	2"
Tree Swallows	5" :	x 5"	1" to 5"	11/2"

By changing the outside dimensions of the house, a great number of other popular birds can be accommodated. While instructions given here will cover all details, the construction can be easily simplified by the builder who may not wish to follow all details. Instead of cutting out and fitting windows and door, these may be painted on the sides with good effect, while the side boards, in place of being chiseled out, may be outlined with a scratch awl.

The choice of wood for such houses should be confined to easily-worked wood, such as poplar, pine, or cypress. Cypress is recommended because of its resistance to weather and general durability.

Front

Square up stock to $\frac{1}{2}$ " thick, 4" wide and 12" long. Lay out the door and windows with their casings, as well as the corner boards and frieze, which are shown in the plan under "Front View." With a scratch awl, score lines separating the clapboards from the casings, frieze, and corner boards. A line is now scored with the scratch awl or a knife along the bottom of each course of clapboards. The clapboards are now shaped. Use a $\frac{1}{2}$ " chisel at an angle to cut $\frac{3}{64}$ " deep at the top of each clapboard and nothing at the bottom. Apply the chisel with the grain of the wood when doing this work.

Saw out the windows and doors with the coping saw, and be sure to include 3/32'' at the bottom of each for a sill. Rabbet each end of the front board, as shown in the "Plan" view. These grooves are $\frac{1}{4}$ " deep and $\frac{1}{2}$ " wide. Form the window sills from 3/32'' thick and 17/32'' wide stock. Cut these long enough to extend 1/32'' beyond the casings. Bevel the top edge to obtain a 1/32'' pitch outward, as shown under "Section B-B."

Stock is cut for the door and windows $\frac{1}{2}$ " wider and $\frac{1}{4}$ " longer than these sawed-out spaces. Rabbet their sides and top to allow them to fit half-way through these openings. Note this in "Section C-C." A 1" diameter hole is bored through the door board, as shown in the front view. The shutters on the windows and the door are cut half as wide as the openings and their full length. These are $\frac{1}{16}$ " thick. They are shown in the view "Section C-C."

Sand all these parts smooth and carefully test each in its place for proper fit. Attach the sills, shutters, and the window and door blocks in place with waterproof glue.

Back

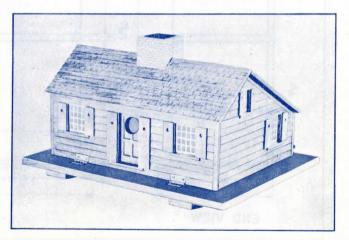
Square up stock to ½" thick, 2¾" wide and 12" long. Lay out and scratch in the door and windows, as well as the casings, frieze, and corner boards, which has already been explained. The chiseling of the clapboards, as well as the sawing out and fitting of the windows and door, are done in the same manner as described for the front board. No hole is bored through the rear door, however, as there is only one entrance to the house. Sand all parts and glue them together. Note that the ends of the back board are also rabbeted for the sides of the house.

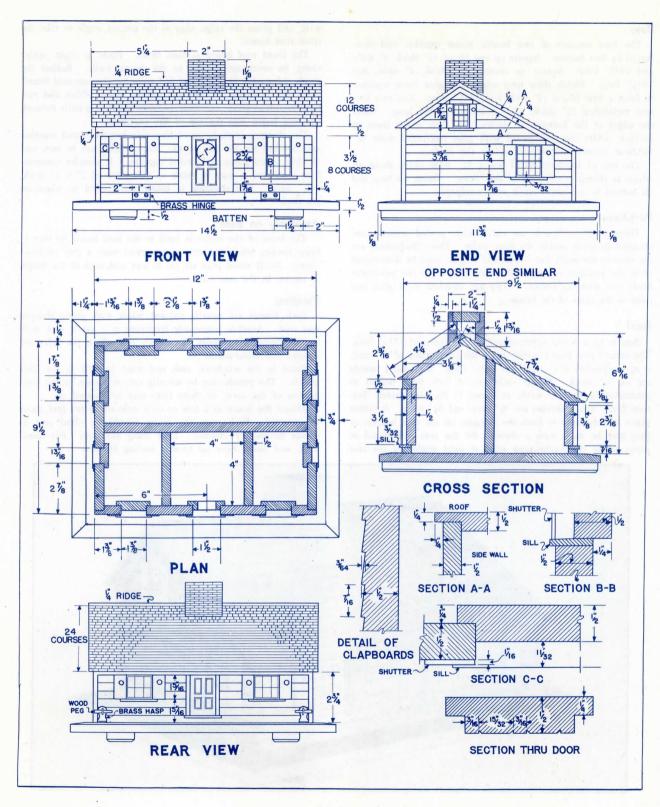
Sides

Both sides are exact duplicates. Square up two boards $\frac{1}{2}$ " thick, 5 31/32" wide, and 9½" long. Measure 4" up one side and 2¾" up the other side, and mark. Lay out the roof lines on both boards and saw them out. Note that both straight sides of these boards must be set in ¼" up to the roof line, so that when the front and back are in place with the roof boards, the roof will extend out, as shown in the cross section view.

The upper and lower windows in these side boards are laid out, and the frieze scratched in, but no corner boards are marked on the sides, as the ends of the front and back board form natural ones. Door and window boards with their sills are cut and glued in place, and the shutters then added. Whenever completing such a wall, all clapboards must of necessity be chiseled to form first. Care must be taken to see that the clapboards are cut on opposite sides of the duplicate side boards, and that their windows are inserted from opposite sides.

The four walls of the house are now ready to be assembled together. This is done with waterproof glue and 3/4" brads. Glue the side boards into the notches cut for them at the ends of the front and back boards. Drive the brads through the front and back boards into the ends of the side ones.





Base

The base consists of two boards glued together and reinforced by two battens. Square up one board ½" thick, 8" wide and 14½" long. Square up another ½" thick, 4" wide, and 14½" long. Match their long edges and glue them together to form a base board 12" wide and 14½" long. Cut two battens measuring ½" thick, 1½" wide, and 11¾" long. Bevel the edges of the battens, as shown, and then attach them in position under the base board with glue reinforced with ¾" flat-head screws countersunk below the surface.

The top of the base board has a 3/4" wide bevel along all edges, as shown in the view of the "Plan." Bring the base and its battens to a smooth finish with sandpaper.

Partitions

Three partition boards are cut to size, sanded smooth, and attached in place inside the four walls. Their thicknesses are the same as the walls, but widths and lengths must be determined from the position in which they are placed for the particular birds you wish to attract. They are attached with glue and nails to the sides of the house.

Roof

Square up a board approximately $7\frac{1}{2}$ " wide and $12\frac{1}{2}$ " long. The second roof board, which is for the front plane of the roof, is approximately $4\frac{1}{2}$ " wide and $12\frac{1}{2}$ " long. Both these boards are of $\frac{1}{2}$ " stock. Rabbet each end of both these boards to accommodate the side walls, as shown in the plan under "Section A-A." These notches are $\frac{1}{4}$ " deep and $\frac{3}{4}$ " wide. A rabbet plane may be used to form the shingles on the roof boards, or they may be sunk with a chisel. Fit the rear roof board in place, plane its overhanging edge at right angles to the rear

wall, and plane the ridge edge at the correct angle to take the front roof board.

The front roof board is then fitted. Plane at right angles along its overhanging ends to the house walls. Rabbet the inside ridge edge ½" deep and ½" wide for the rear roof board. Note this assembly in the cross section view. Glue and nail these boards in place, and then reinforce by driving nails through the roof board into the top of the partitions.

The chimney is made up of four side boards mitred together and notched for the top board. This is then cut to size, and the five pieces glued and nailed together. If simpler construction is desired it may be made of one piece of 2" x 2" stock, 1%" long. The chimney is glued and nailed in place on the roof.

Assembly on Base

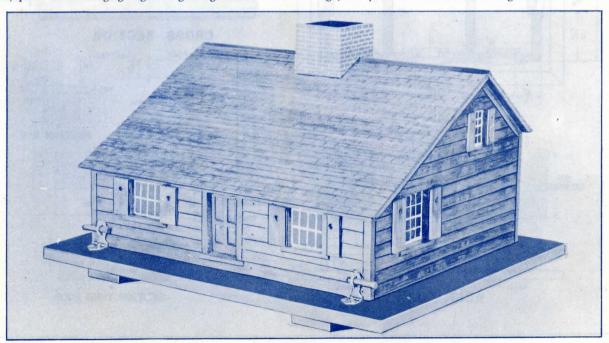
The front of the house is held to the base board by two 1" brass hinges, while the rear is equipped with a pair of brass hasps. Small wood pegs are cut to size and used in the hasps, as shown in the rear view.

Painting

Such houses are usually painted white with green shutters and roof. Another interesting treatment is a green roof with weather-beaten clapboards. To obtain this effect, the sides are stained and unvarnished.

Paint in the windows, sash and trim, as well as the door panels. The panels may be actually cut, as shown in the cross section of the door, or these lines may be painted in.

Mount the house in a tree or on a pole six to ten feet above the ground. Each year, the house should be lifted and its inside thoroughly cleaned. Then hang out your "For Rent" sign, and you'll have no trouble finding tenants!



Homeworkshop Library-Stanley Books and Plans



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- S72 Work Bench



NEW!

An authentic, complete and handy text or reference book on the use of all the common woodworking tools. The contents of this tool guide is the result of years of research and the expenditure of many hundreds of dollars. It is profusely illustrated and the instructions are clear and concise.

There are few woodworkers who cannot profit from a study of this Tool Guide. The following is a partial list of contents: How to use the Bench Plane, Block Plane, Hammer, Hand Drill, Bit Brace, Auger Bit, Screw Driver, Saw, Doweling Jig, Try Square, Bevel, Spoke Share, etc.; how to assemble a Plane; how to sharpen Plane Irons; how to hang a door; names of tool parts; and much more information of value to all who are interested in working with tools and wood.

SELECTING TOOLS FOR A HOMEWORKSHOP

When you start a homeworkshop you are naturally in some doubt as to the first tools to buy. To help you make a proper selection, we have compiled a list of tools needed for woodworking.

The expense of procuring the tools listed should not be discouraging if you begin with the minimum set which we have listed as Primary Tools. The other tools may be added as

the need presents itself.

Be sure you get good tools. We cannot emphasize this too strongly. The long life of a quality tool makes it decidedly more economical. A tool that is designed and made right will give you confidence as you use it. Manufacturers put their name on quality tools and make every effort to guard against defects in material and workmanship. This assurance of quality is well worth the small difference in price. Good tools, like good friends, wear well. You will take pride in their possession.

Select your tools carefully and gradually

add to your set as required.

STANLEY TOOL CATALOG

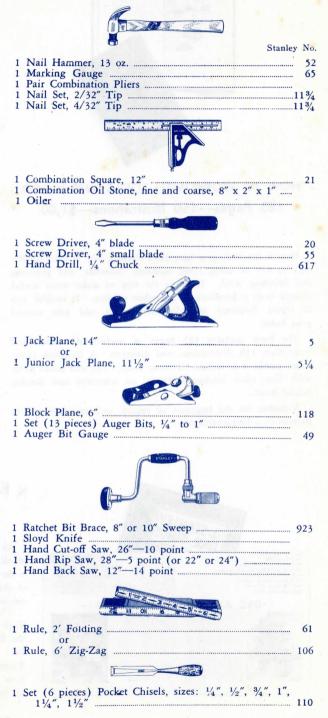
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The Stanley No. 34 Tool Catalog is more than a mere tool catalog. It illustrates and describes more tools than any other catalog. Included in this book you will also find important tables and data that will help you with many questions dealing with measurements and construction.

STANLEY TOOLS NEW BRITAIN, CONNECTICUT

PRIMARY TOOLS



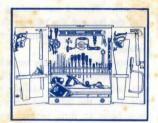
SELECTING TOOLS FOR A HOMEWORKSHOP

TOOLS TO BE ADDED AS NEEDED

	Stanley	No.		Stanley No.
1	Coping Saw, extra saw blades		1 Steel Square, 24" x 16"	100
1	Screw Driver, small 3" blade	121	1 T Bevel, 8" blade	18
1	Screw Driver, large 6" blade	20		
1	Pair Dividers, 8"			
			1 Mitre Box with 26" saw	2246
			1 Hack Saw, adjustable, and 6-12" blades	
1	Smooth Plane9", No. 4, or 8", N	Jo. 3	1 Dovetail Saw, 6" blade	
1	Half Round Cabinet Rasp, 10"		1 Glass Cutter	
î	Half Round Cabinet File, 10"		1 Bench Duster	
1	Smooth Mill File, 10"		1 Jointer Plane, 22"	7
1	Auger Bit File		or Fore Plane	6
1	Slim Taper File			
1	Round Bastard File, 10"			
1	Flat Bastard File, 10"			
	File Handles for above			
1	Wire File Card		1 Rabbet Plane	
			1 Router Plane	
			1 Scrub Plane	
			1 Combination Plane (55 cutters)	
	M. S. S. L.		or	
			1 Combination Plane (23 cutters)	45
1	Cabinet Scraper	80	1 Plumb Bob	
	Burnisher		1 Pair Tinners' Snips, 10"	
1	Mallet, 3" Face		1 Metal Working Vise, 4" Jaws	
2	C Clamps, 4", and 2 C Clamps, 8"		1 Pipe Wrench, Stillson type, 14"	
2	Adjustable Hand Screws, 6" Jaws		1 Monkey Wrench, 8"	
2	Adjustable Hand Screws, 8" Jaws		1 Open End wienen, 8	
	Adjustable Hand Screws, 10" Jaws			
	2—4 ft. and 2—6 ft. Bar Clamps		A STATE OF THE PARTY OF THE PAR	
1	Dowel Sharpener Dowel Jig with 5 Guides	22 59	in the bary source bose, when carried the line	
1	Expansive Bit, large size, capacity	79	The state of the s	
1	7/8" to 3" with extra cutter		to on all that deal State how without the	
1	each Bit Stock Drill with square shank		1 Saw Set	42
	1/16", 3/32", 1/8", 5/32", 3/16", 7/32"		1 Glue Pot and Glue Brush	
1	each Straight Shank Carbon Drills for		1 Putty Knife	
	hand drill, 1/16", 5/64", 3/32", 7/64", 4/32", 9/64",		1 Scratch Awl	6
	5/32", 11/64"		1 Spoke Shave	
			1 Spoke Shave, Convex Bottom	
			1 Electric Grinder, 7" Wheel for Plane Irons,	
			Chisels, etc., 110 A.C., 60 Cyclesor Hand Grinder	
			1 Pair Trammel Points	
			1 Soldering Iron, electric	
1	Countersink 3/"	139G	T boldering from, electric	
1	Countersink, 3¼" Brad Awl, 1½" blade	17		
2	Screw Driver Bits, 18", 3%"	26		
	7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7			
			1 Center Punch, 5/64" Tip	10
			1 Caliper Rule, 1 ft.	
	COMMICTOR OF COMMI		1 Cold Chisel, 3/4"	99
			1 Mortise Gauge	98
			1 Breast Drill	
1	Level, 24"	. 257	2 Cornering Tools	28-29
1	Draw Knife, 10"		1 Riveting Hammer, 4 oz.	230
1	Ripping Bar, 18"	. 118	1 Hammer, Ball Pein, 12 oz.	
	Gouges, outside bevel, 1/4", 1/2", 1"		1 Hammer, Upholsterers'	
1	Hand Axe, 19"		1 Nail Hammer, 7 oz.	
. 1	Compass Saw, 14"		I Ivail Hailinici, 10 02.	

Sixteen Things You Can Make With STANLEY TOOLS

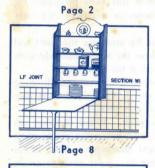




Page 4







HE various articles contained in this book have been chosen as a representative group likely to interest the greatest number of readers. Before becoming a part of these pages, each one has had to pass the question,
"Can the amateur build it?" and "Will he want to build it?"
The accompanying drawings and instructions have been

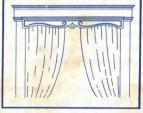
presented to help the reader, and should be considered as suggestions rather than definite plans. Should either shape, size, or design of any article fail to please or prove unsuitable to your particular needs, change it to suit yourself, but by all means, get to work and enjoy the pleasure of mak-

An article you may purchase will never bring with it the satisfaction you will have from something you have made

If you would be a good craftsman, learn how to choose good tools, learn how to use good tools, and learn how to keep good tools. When you have accomplished these fundamentals, you will belong among the skilled craftsmen.







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